

Prior to an examination on the merits, applicant requests that the examiner contact the undersigned for the purposes of conducting a telephone interview.

REMARKS:

In the foregoing amendments, independent claim 1 was amended to define an upper limit for Fe of 45.2 %, which is shown in run No. G in table 1 on page 17 of applicant's specification disclosure. Claim 21 was added to the application. This claim is similar in scope to amended claim 1, but defines that the alloy has a balance of Fe, where the balance of Fe includes 20.6% Fe. Claims 1-21 are presented for consideration by the examiner.

Applicant respectfully submits that the present specification disclosure provides a written description of the amounts of Fe set forth in claims 1 and 21 within the meaning of 35 U.S.C. §112, first paragraph. Therefore, applicant respectfully requests that the examiner reconsider and withdraw the rejection of claims 1-20 under 35 U.S.C. §112, first paragraph, which was set forth in the final Office action mailed August 11, 2005.

In the final Office action, claims 1-3, 6, 9-13, 15-16 and 18-19 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. patent No. 4,871,512 of Takagi *et al.* (Takagi). Claims 1-3, 6, 9-13, 15-16 and 18-19 were also rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of copending application No. 10/371,363 (US 2003/0164213) of Ueta *et al.* (Ueta).

Applicant respectfully submits that the presently claimed amounts of Fe (namely, 20.6-45.2 wt % in claim 1; and balance Fe, where the balance Fe includes 20.6% Fe in claim 21) patently distinguish the presently claimed invention from the teachings of Takagi and the copending application of Ueta. The teachings of Takagi propose not more than 5 % Fe, which is significantly different from the amount of Fe presently claimed. The copending application of Ueta proposes not more than 20 mass% Fe. The Official action cited case law explaining that a prima facie case of obviousness typically exist when the ranges of the claimed composition overlap the ranges disclose in the prior art. However, in the present situation, neither Takagi nor Ueta propose an amount of Fe that overlaps the range set forth in applicant's claims. Therefore, there can be no obviousness for the presently claimed invention based on these teachings.

Moreover, the copending application of Ueta specifically states that more than 20 mass% Fe cannot be used therein or the high-temperature strength of the alloy is lowered. See, for example, paragraph 0022 of the published application. Since the copending application of Ueta includes a positive statement explaining that no more than 20 mass% Fe, these teachings cannot possibly motivate one of ordinary skill in the art to applicant's claimed invention, which requires no less than 20.6 wt% of Fe.

For the foregoing reasons, applicant respectfully requests that the examiner reconsider and withdraw the rejections of the present claims over the teachings of Takagi and Ueta.

Claims 1-3, 6, 9-13, 15-16 and 18-19 were rejected under 35 U.S.C. §103 as being unpatentable over U.S. patent No. 5,779,972 of Noda et al. (Noda) in view of Takagi and Ueta. The teachings of Takagi and Ueta were discussed and distinguished from applicant's claimed invention above. The teachings of Noda do not cure or rectified these deficiencies in the teachings of Takagi and Ueta. In addition, it is respectfully noted that the teachings of Noda propose amounts of Ni, W and Mo outside the range of applicant's claims. Applicant respectfully submits that it is impermissible within the framework of 35 U.S.C. §103 to select isolated portions from separate teachings and indiscriminately substitute these teachings into other teachings so as to arrive at the presently claim invention. For all these reasons, applicant respectfully requests that the examiner reconsider and withdraw the rejection of the present claims over the combined teachings of Takagi, Ueta and Noda.

Claims 1-20 were rejected under 35 U.S.C. §103 as being unpatentable over EP 0639654 of Sato et al. (Sato). During a personal interview with Examiner Sikyin Ip on November 16, 2005, the undersigned explained that the data in the present specification disclosure demonstrates the unexpected advantages of the presently claimed alloy over that proposed by Sato. During the personal interview, the examiner stated that if limitations were inserted into the claims that defined a range of property values for the presently claimed invention, such as set forth in table 3 of the present application, this could place the application in condition for allowance. In the foregoing amendments, applicant included a wherein

clause in claims 1 and 21 that defines the alloy has at least three properties selected from the following five properties: (1) a room temperature tensile strength from 1237 to 1295 MPa, (2) hot processibility at a temperature range from 250 to 300°C, (3) a Rockwell hardness from 32.3 to 37.8 HRC after solution treatment, (4) a tensile strength at 800°C from 492 to 716 Mpa, and (5) a rotating bending fatigue from 283 to 330 Mpa. The limits for these ranges of properties were obtained from table 3 on page 19 of the present specification disclosure for Working Examples (runs) A-H in accordance with the presently claimed invention. Applicant respectfully submits that the limitations in this wherein clause patently distinguish applicant's claimed invention, as defined in claims 1-21, from the teachings of Sato.

For example, as can be seen by viewing tables 3 and 4 on page 19 of the specification, it is readily apparent that the properties of the alloy in accordance with applicant's claimed invention has a much smaller or tighter range of superior properties, when compared to the range of properties for the prior art alloys. For applicant's claimed invention:

- Room temperature tensile strength is between 1237 and 1295 MPa,
- Hot processable at a temperature range between 250 and 300°C,
- Rockwell hardness is between 32.3 and 37.8 HRC after solution treatment,
- Tensile strength at 800°C is between 492 and 716 MPa, and

- Rotating bending fatigue is between 283 and 330 MPa.

Viewing table 4, of the five comparative examples set forth therein:

- Four have a room temperature tensile strength outside the aforesaid range for the alloy of applicant's claims,
- Three have a temperature range outside that of applicant's claimed alloy,
- Three have a Rockwell hardness outside that of applicant's claimed alloy,
- All have a tensile strength outside that of applicant's claimed alloys, and
- Four have a rotating bending fatigue outside of that of applicant's claimed alloy.

Claims 1 and 21 require that the presently claimed invention has at least three out of five properties within the property ranges for the alloy of applicant's claims. None of the comparative alloys meet this limitation. For this reason, applicant respectfully submits that the presently claimed invention is patently distinguishable from the teachings of Sato. In other words, those persons skilled in the art, viewing tables 3 and 4, would understand that the alloys set forth in the comparative examples have limited properties in a very wide range or a shotgun of properties. On the other hand, the alloy in accordance with applicant's claims provides a balance of properties within a small range of superior properties, which provides an unexpectedly superior alloy compared to the prior art.

For the foregoing reasons, applicant respectfully submits that the presently claimed invention is patently distinguishable from the

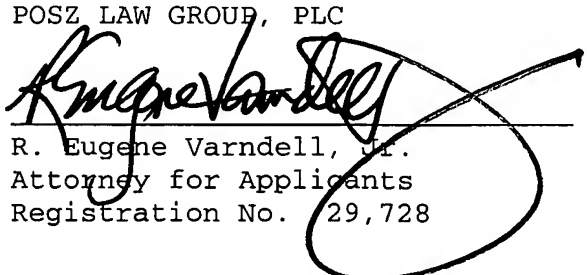
teachings of Sato. Therefore, applicant respectfully requests that the examiner reconsider and withdraw this rejection.

For all these reasons, applicant respectfully submits that the invention set forth in claim 1, as well as the claims that depend thereon, and claim 21 are patently distinguishable from the discussions and claims of Noda, Ueta, and/ or Takagi, as well as the teachings of Sato. Therefore, applicant respectfully requests that the examiner reconsider and withdraw all the rejections set forth in the outstanding Office action and allow claims 1-21.

While it is believed that the present response places the application in condition for allowance, should the examiner have any comments or questions, it is respectfully requested that the undersigned be telephoned at the below listed number to resolved any outstanding issues.

In the event this paper or the request for continued examination (RCE) filed herewith is not timely filed, applicant hereby petitions for an appropriate extension of time. The fee therefor, as well as any other fees which may become due, may be charged to our deposit account No. 50-1147.

Respectfully submitted,  
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